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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/728,225	11/30/2000	Richard Jeremiah Gonyea	RD-28,035/USA	6546

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GENERAL ELECTRIC COMPANY
GLOBAL RESEARCH
PATENT DOCKET RM. BLDG. K1-4A59
NISKAYUNA, NY 12309

EXAMINER

FISHER, MICHAEL J

ART UNIT	PAPER NUMBER
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3629

DATE MAILED: 10/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/728,225

Applicant(s)GONYEA ET AL. **Examiner**

Michael J Fisher

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-86 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-86 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-86 are rejected under 35 U.S.C. 103(a) as being unpatentable over US PAT 5,210,704 to Hussein.

As to claims 1,8,9,13,15,17,28,29,36,37,40,41,45,57,58,65,66,70,72,74,75,86 Hussein discloses a system for predicting a maintenance schedule (title) with a scheduler that determines a list of future services, (failure indicating means that predicts failure, claim 1). It would be inherent that the service is for a predetermined time (as long as it is paid for).

Hussein does not, however, teach a simulator that simulates the cost of the services. It is very well known in the art for companies to formulate a business plan to budget future costs, therefore, it would have been obvious to one of ordinary skill in the

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art to modify the system as disclosed by Hussein by having the scheduler assign costs to the future services, and further to aggregate such costs, to allow a company to formulate a business plan.

As to claim 2,30,59, it would be inherent that the failure indicating means would sequence the predicted failures in order of their occurrence.

As to claims 3,31,60, Hussein discloses a scheduler adjuster ("means for regulating further operations of said component", claim 1).

As to claims 4,32, 46,61,63 Hussein discloses determining which components will fail (claim 16).

As to claims 5,6 it would be obvious to one of ordinary skill in the art to modify the system as disclosed by Hussein by determining the availability of spare part for future failures to minimize the time the component is not in working order.

As to claims 7,14,16,19, 42,43,44,50,64,71,73,77,79, Hussein discloses assessing risks (claim 19, whether a local or global failure).

As to claims 10,11,12,38,39,67,68, 39, Hussein discloses calculating an operating time (until failure). Hussein does not, however, teach comparing the calculated operating time to the design limit. It would have been obvious to one of ordinary skill in the art to modify the system as disclosed by Hussein by comparing the predicted failure to design limit to comply with safety regulations as a machine should not be operated outside of its operational parameters.

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As to claims 18,19,20,21,22,47,49,51,76,78,80, it would have been obvious to one of ordinary skill in the art to use previously stored parts costs and parts and services risks to have accurate cost estimates.

As to claims 23,33,34,48,52,62,81, it would have been obvious to one of ordinary skill in the art to determine the availability of parts, whether new or used, to be replaced to ensure that they are on hand to avoid lengthy down-time of the machinery.

As to claims 24,53,82, Husseiny it would be obvious to one of ordinary skill in the art to search a predetermined inventory pool (the one of the supplier).

As to claims 25,26,54,55,83,84, it would have been obvious to one of ordinary skill in the art to use a plurality of parts inventories as one might not have the necessary part and further, to search them in order (for instance, in order of general cost).

As to claims 27,56,85, it would be inherent that Husseiny determines if a part can be purchased, whether new or used.

As to claim 37, it would have been obvious to one of ordinary skill in the art to

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US PAT 6,490,506 to March, March discloses a method for monitoring and predicting services in a maintenance environment, US PAT 6,192,325 to Piety et al., Piety et al. disclose a method and apparatus for establishing a predictive maintenance database.

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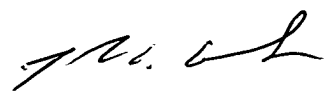
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J Fisher whose telephone number is 703-306-5993. The examiner can normally be reached on Mon.-Fri. 7:30am-5:00pm alt Fri. off.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MF

10/01/04


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